

**WHAT IS CLAIMED IS:**

1. A pharmaceutical unit dose consisting essentially of about 250 to about 450 mg of modafinil.
- 5 2. A pharmaceutical unit dose consisting essentially of about 250 to about 350 mg of modafinil.
3. The unit dose of claim 1 consisting essentially of about 275 to about 325 mg of modafinil.
- 10 4. The unit dose of claim 1 consisting essentially of about 325 to about 450 mg of modafinil.
5. The unit dose of claim 1 consisting essentially of 275 to 325 mg of
- 15 modafinil.
6. The unit dose of claim 1 consisting essentially of 325 to 450 mg of modafinil.
- 20 7. The unit dose of claim 1 consisting essentially of 255 mg of modafinil.
8. The unit dose of claim 1 consisting essentially of 300 mg of modafinil.
9. The unit dose of claim 1 consisting essentially of 340 mg of modafinil.
- 25 10. The unit dose of claim 1 consisting essentially of 425 mg of modafinil.
11. A method of treating ADHD in a human subject comprising the step of administering a single dose of about 250 to about 450 mg of modafinil within a 24 hour
- 30 period to the human subject.

12. A method of treating ADHD in a human subject comprising the step of administering a single dose of about 250 to about 350 mg of modafinil within a 24 hour period to the human subject.

5 13. The method of claim 11, wherein the subject is a pediatric subject.

14. The method of claim 11, wherein about 425 mg of modafinil is administered to the subject.

10 15. The method of claim 11, wherein about 340 mg of modafinil is administered to the subject.

16. The method of claim 11, wherein about 300 mg of modafinil is administered to the subject.

15 17. The method of claim 11, wherein about 255 mg of modafinil is administered to the subject.

20 18. A pharmaceutical unit dose of modafinil that, following oral administration to a human, results in a blood profile of modafinil substantially as shown in Fig. 3.

25 19. A method of treating ADHD in a human subject with modafinil, comprising the step of administering to the subject a single dose of modafinil in a 24 hour period that is sufficient to induce a blood profile of modafinil substantially as shown in Fig. 3.

30 20. The unit dose of claim 1, wherein the amount of modafinil in the unit dose is selected from the group consisting essentially of 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345 and 350 mgs of modafinil.

21. The unit dose of claim 1, wherein the amount of modafinil in the unit dose is selected from the group consisting essentially of 355, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 425, 430, 435, 440, 445, and 450 mg of modafinil.

5 22. The unit dose of claim 1, wherein the amount of modafinil in the pharmaceutical unit dose is selected from the group consisting of 255, 300, 340 and 425 mgs of modafinil.

10 23. The unit dose of claim 1, wherein about 70 to 75% of the total tablet weight is modafinil.

24. The unit dose of claim 1, wherein about 80% of the total tablet weight is modafinil.

15 25. A pharmaceutical composition comprising about 250 to about 450 mg of modafinil.

26. A pharmaceutical composition comprising about 250 to about 350 mg of modafinil.

20 27. The composition of claim 25 comprising about 275 to about 325 mg of modafinil.

25 28. The composition of claim 25 comprising about 325 to about 450 mg of modafinil.

29. The composition of claim 25 comprising 275 to 325 mg of modafinil.

30. The composition of claim 25 comprising 325 to 450 mg of modafinil.

31. The composition of claim 25 comprising 255 mg of modafinil.
32. The composition of claim 25 comprising 300 mg of modafinil.
33. The composition of claim 25 comprising 340 mg of modafinil.
- 5 34. The composition of claim 25 comprising 450 mg of modafinil.
35. A pharmaceutical composition comprising about 250 to about 450 mg of modafinil that is free of magnesium silicate or talc.
- 10 36. The composition of claim 35 comprising one or more diluents, each independently chosen from a starch, a lactose monohydrate or a microcrystalline cellulose; one or more disintegrants, each independently chosen from a pregelatinized starch or a cross-linked sodium carboxymethyl cellulose; a binder; and a lubricant.
- 15 37. The composition of claim 36, wherein the binder is a polyvinyl pyrrolidone, and the lubricant is magnesium stearate.
38. The composition of claim 35, wherein the composition is a tablet.
- 20 39. The composition of claim 35, wherein about 90% of the tablet weight is modafinil.
40. The composition of claim 35, wherein about 80% of the tablet weight is  
25 modafinil.
41. The unit dose of claim 1, wherein the modafinil is R-(-)2-[(diphenylmethyl)sulfinyl] acetamide.
- 30 42. The composition of claim 25, wherein the modafinil is R-(-)2-[(diphenylmethyl)sulfinyl] acetamide.

43. The unit dose of claim 1, wherein the modafinil is R-(-)2-  
[(diphenylmethyl)sulfinyl] acetamide.

44. The composition of claim 25, wherein the modafinil is R-(-)2-  
5 [(diphenylmethyl)sulfinyl] acetamide.